

This listing of claims will replace all prior versions, and listing of claims in the application:

Listing of claims:

Claim 1 (currently amended) Cell culture apparatus comprising

[-] a flexible culture chamber, and

[-] a wave induction mechanism;

~~wherein the wave induction mechanism that~~ lifts up between 5 and 50% of the length of the culture chamber.

Claim 2 (original) Cell culture apparatus according to claim 1, wherein the wave induction system moves from 8 to 20% of the surface area of the lower part of the culture chamber.

Claim 3 (currently amended) Cell culture apparatus according to claim 1 ~~or claim 2~~, wherein the wave induction mechanism moves part of the lower part of the culture chamber to an angle of 1 to 90°, ~~preferably 1 to 25°~~.

Claim 4 (currently amended) Cell culture apparatus according to ~~any preceding claim 1~~, wherein the culture chamber comprises means to circulate the air such as tube or air permeable membrane.

Claim 5 (currently amended) Cell culture apparatus according to ~~any preceding claim 1~~, wherein the wave induction mechanism lifts up alternatively between 5 and 50% of the length of the culture chamber.

Claim 6 (currently amended) Cell culture apparatus according to ~~any preceding claim 1~~, wherein the culture chamber is a flexible plastic bag.

Claim 7 (currently amended) Cell culture apparatus according to ~~any preceding claim 1,~~ wherein the culture chamber filling rate is from 10 to 80%, ~~preferably 20-40%.~~

Claim 8 (currently amended) ~~Use of a cell culture apparatus according to any preceding claims to cultivate~~ A method for cultivating plant cells, animal cells, or microorganisms comprising the steps of using a cell culture apparatus that comprises a flexible culture chamber, and a wave induction mechanism that lifts up between 5 and 50% of the length of the culture chamber.

Claim 9 (currently amended) ~~Use of a cell culture apparatus according to any preceding claim wherein cells are~~ A method for producing biomass cells, embryogenic plant cells, metabolites, secondary plant metabolites and/or recombinant molecules comprising the steps of using a cell culture apparatus that comprises a flexible culture chamber, and a wave induction mechanism that lifts up between 5 and 50% of the length of the culture chamber to produce biomass cells, embryogenic plant cells, metabolites, secondary plant metabolites and/or recombinant molecules.

Claim 10 (new) Cell culture apparatus according to claim 1 wherein the wave induction mechanism moves part of the lower part of the culture chamber to an angle of 1 to 25°.

Claim 11 (new) Cell culture apparatus according to claim 1 wherein the culture chamber filling rate is from 20 to 40%.